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**DATA STRUCTURE FOR A
COMPLEX ORDER PROCESSING SYSTEM**Richard Joseph Caballero
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REFERENCE TO RELATED APPLICATION

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This application is a continuation of U.S. Patent Application Serial No. 10/024,691 (Attorney Docket No. M-12420 US) entitled System and Method for Processing Complex Orders, filed December 17, 2001, which is assigned to the same assignee as the present disclosure.

BACKGROUND

Virtually every company provides goods and/or services to their customers. The goods and services often include several components that can be ordered to the customer's specifications. For example, a telephone company can provide wireless and wired phone service, access to the Internet via one or more communication links such as wireless access, a digital subscriber line (DSL), or a T1 line, and hardware for accessing the services. During the initial ordering process, it is common for a customer to select and change various components or service options over a period of time until the goods are delivered and services are established or performed. As the needs of a customer change over time, the customer can choose to add or remove services, or upgrade some of the products or components in the products.

Many companies, such as communications and energy companies, bill for their services by a mix of one-time fees (e.g. installation or disconnection), recurring charges (e.g. a monthly access charge) and usage based charges (e.g. long distance calling charges). The recurring and usage based rates are determined when the request for service is captured as a quote or an order. After the initial installation order is provisioned, those rates can be re-priced due to an update to the price list, or the addition or removal of other products and services that impact the pricing of all services offered to the customer (e.g. adding a new local line qualifies the customer for a volume discount on the recurring charge for all local lines).